



## Department of Primary Industries

OUT13/15636

24 JUN 2013

Ms Sarah Waterworth  
NSW Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

sarah.waterworth@planning.nsw.gov.au

Dear Ms Waterworth,

**West Culburra Mixed Use Concept Plan (MP 09\_0088.)  
Response to exhibition of Environmental Assessment**

I refer to your letter dated 17 April 2013 requesting advice from the Department of Primary Industries (DPI) in respect to the above matter.

Comment by Fisheries NSW

Fisheries NSW advises significant concerns with the proposed Concept Plan. See attachment A.

For further information please contact Allan Lugg, Senior Fisheries Conservation Manager, (Huskisson Office) on 4428 3401, or at [allan.lugg@dpi.nsw.gov.au](mailto:allan.lugg@dpi.nsw.gov.au).

Comment by Marine Parks Authority

The Marine Parks Authority is now a separate agency within the Fisheries NSW division of the Department of Primary Industries. In relation to your separate referral of this matter to that Authority, it is advised:

- (i) the proposed development site is located on the Crookhaven River north-west of Lake Wollumboola, to the north of Jervis Bay.
- (ii) although geographically close, the site does not border the Jervis Bay Marine Park and is not within the marine park catchment and as such the Authority has no comment on the proposal in relation to the Marine Park.

For further information please contact Frances Clements, Acting Manager Jervis Bay Marine Park (Huskisson office) on 4428 3003, or at: [frances.clements@dpi.nsw.gov.au](mailto:frances.clements@dpi.nsw.gov.au).

Comment by NSW Office of Water

The NSW Office of Water raises a number of issues in respect to the protection of the riverine and estuarine foreshore of the Crookhaven River and associated wetlands. See attachment B.

For further information please contact David Zerafa, Senior Licensing Officer (Nowra Office) on 4429 4441 or at [david.zerafa@water.nsw.gov.au](mailto:david.zerafa@water.nsw.gov.au).

Comment by Crown Lands

Crown Lands forwarded their response directly to your office on 18 June 2013.

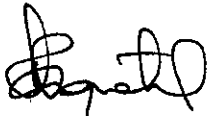
For further information please contact Helen Wheeler, Natural Resource Project Officer (Nowra Office) on 4428 9133 or at [helen.wheeler@lands.nsw.gov.au](mailto:helen.wheeler@lands.nsw.gov.au).

Comment by NSW Agriculture

Agriculture NSW advise no issues.

For further information please contact Wendy Goodburn, Resource Management Officer (Goulburn Office) on 4828 6635 or at [wendy.goodburn@industry.nsw.gov.au](mailto:wendy.goodburn@industry.nsw.gov.au).

Yours sincerely

A handwritten signature in black ink, appearing to read 'Phil Anquetil', with a stylized flourish at the end.

Phil Anquetil

**Executive Director Business Services**

## Attachment A

### West Culburra Mixed Use Concept Plan (MP 09\_0088) Response to exhibition of Environmental Assessment Comment by Fisheries NSW

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#### 1. Summary

The proposed development site lies adjacent to the Crookhaven River estuary which supports extensive areas of marine vegetation (including seagrass, mangroves and saltmarsh, important fish habitat, Priority Oyster Aquaculture Areas, and commercial and recreational fishing. While the proposal includes a 100 metre foreshore buffer zone, the buffer is seriously compromised by a wide range of ancillary components of the proposal including earthen swales, wetlands and retention ponds for water quality treatment, areas to be cleared of all vegetation to provide "vistas" and a pedestrian/bike path.

The proposal includes plans for waterfront tourist development. However the Crookhaven estuary at this site is fundamentally unsuited to such development since it is shallow and tidal and dominated by mud. There is no evidence of consultation with oyster farmers regarding potential surrender of oyster leases to enable waterfront development.

There are also significant issues related to risks to water quality. The water quality modelling suggests that water quality emanating from the site will improve as a result of the development. This is difficult to believe given the scale and duration of the works required to complete the development. Reduced water quality poses a significant risk for the nearby oyster farms in particular. The proponents are incorrect by suggesting that the development can be carried out without any risk to water quality.

Considerable redesign of the foreshore buffer and water quality treatment components of the proposal is required before the Concept Plan would be acceptable.

#### 2. Issues Related to Fisheries

Fisheries NSW is responsible for ensuring that fish stocks are conserved and that there is "no net loss" of key fish habitats upon which they depend. To achieve this, Fisheries NSW ensures that developments comply with the requirements of the *Fisheries Management Act 1994* (namely the aquatic habitat protection and threatened species conservation provisions in Parts 7 and 7A of the Act respectively) and the associated *Policy and Guidelines for Fish Habitat Conservation and Management (2013)*. In addition, Fisheries NSW is responsible for ensuring the sustainable management of commercial, recreational and Aboriginal cultural fishing, aquaculture and marine protected areas within NSW.

Fisheries NSW policy states that all developments should aim to achieve "no net loss" of Key Fish Habitats. Fisheries NSW also supports the aims and requirements of SEPP 62 (Sustainable Aquaculture) which include ensuring that developments do not have adverse impacts on oyster aquaculture in the vicinity of the development. It is belief of Fisheries NSW that this proposal will not achieve these outcomes. Therefore, Fisheries NSW does not support approval of the Concept Plan for Mixed Use Subdivision at West Culburra in its current form. There are 4 main reasons for adopting this position:

##### (i) Risk of adverse water quality impacts upon the Crookhaven River estuary and Curleys Bay

It is acknowledged that the proposal includes a 100 metre riparian buffer between the Crookhaven River and the residential development. However this buffer is impacted by other

components of the development and subsequently its ability to adequately filter pollutants emanating from the residential subdivision is highly questionable. The Sediment and Erosion Control Plan prepared by Martens and Associates (Appendix P) depicts Earth Diversion Bunds and Sediment Basins located within the buffer zone. The description of the Proposal also highlights the intent to construct a pedestrian/bike path through the buffer and construct various other recreational facilities such as BBQ shelters, picnic tables, fitness equipment etc. There is also a clear intent to clear parts of the buffer right down to the shoreline to create "vistas".

All of these elements will require extensive earthworks and clearing of vegetation which will in turn seriously compromise the ability of the buffer to filter and capture sediments and nutrients moving downslope from the upslope areas where the subdivision and dwellings would be constructed.

Indeed the earthworks will not only compromise the ability of the buffer to perform its function, but they will create an additional source of sediment, nutrients and pollutants (e.g. litter) close to the waterbody.

## **(ii) Water quality assessment**

The water quality assessment conducted by Martens and Associates predicts that the development will improve water quality compared to the current (pre-development) situation (see Tables 3, 4 & 5 on page 19 of Appendix P).

It is inconceivable that a 637 lot subdivision and 600+ dwellings could be constructed on the site (which is predominantly intact native bushland in its current condition) without some adverse impact upon water quality. The vegetation clearing and soil surface disturbance necessary to construct the road/street layout, install water, sewerage and power infrastructure and construct dwellings is very substantial and will extend over many years (probably several decades). The area will be subject to heavy rainstorms causing surface runoff during that development period. There is simply no possibility that the development will not have an adverse impact upon water quality (and consequently oyster aquaculture) in the Crookhaven River. Further information is required from the proponent to substantiate such claims.

## **(iii) Suitability of the Crookhaven River for foreshore tourist development**

Fisheries NSW supports in principle the provision of some appropriately designed public access to the foreshore adjacent to coastal developments provided it does not compromise the conservation and protection of key fish habitat and the viability of adjacent oyster aquaculture.

However the current proposal creates an expectation of foreshore tourist-type development referred to as a "leisure hub" including a waterfront café, restaurant, motel, boat ramp and jetty. One of the artist's impressions (eg No 3 on page 79 of the EA Main Report) depict two storey buildings right on the shoreline and a large cruiser berthed at a jetty as well as a boat launching ramp. Section 3.3.2 (EA Main Report) refers to the "excellent access to the Crookhaven River".

The Crookhaven River estuary at this location is not suitable for such development. The waterway adjacent to the development site is both shallow and tidal for a distance of 250+ metres before reaching a shallow channel. The waterway adjacent to the proposed development dries to an exposed mudflat at low tide. The channel from Greenwell Point and Orient Point is shallow and difficult to navigate even for small boats at any tidal level other than high tide. The existing channel does not provide all tide boating access to Greenwell Point and the estuary beyond. The development site is simply unsuited to the types of foreshore tourist development proposed. All that is appropriate is some low key canoe/kayak launching facilities. The proponents are incorrect by suggesting that foreshore tourist developments of the types outlined above are a viable and core component of the proposal.

## **(iv) Potential Impact upon Oyster Aquaculture**

Clause 15C of State Environmental Planning Policy 62 – Sustainable Aquaculture makes provision for a consent authority to refuse to grant consent to development if it is satisfied that the development will have an adverse effect on, or impede, or be incompatible with oyster aquaculture. Fisheries NSW notes that the EA has failed to assess the compatibility of the proposal with the adjacent oyster aquaculture industry. In particular the development may be incompatible with oyster aquaculture from:

(a) Adverse water quality impacts.

Water quality affects both oyster lease productivity and the suitability of oysters for human consumption. Of particular concern is increased faecal pollution in run-off from the development. A detailed assessment of this potential impact against the water quality guidelines given in the NSW Oyster Industry Sustainable Aquaculture Strategy is required.

The proponent should also consult with the NSW Food Authority (NSW Shellfish Program) for advice regarding potential impacts on the classification of the Crookhaven River, Goodnight Island and Curleys Bay oyster harvest areas. Contact in this regard should be made with:

Anthony Zammit  
Manager, NSW Shellfish Program  
NSW Food Authority  
Ph: 02 9741 4749  
Fax: 02 9741 4896

(b) Direct impacts on the adjacent oyster leases

There are numerous Priority Oyster Aquaculture Areas (POAA) in the Crookhaven River estuary and many are directly adjacent to the foreshore that will form part of the West Culburra subdivision, including a current lease in the location of the proposed "active waterfront" and jetty. Fisheries NSW would only consent to extinguishing POAAs for a private purpose in extenuating circumstances and then only if any adverse effect on the oyster industry is mitigated. If the proponent requires a current lease to be surrendered, then any such surrender would be at the discretion of the lessee and subject to a negotiated agreement between the lessee and the proponent.

The location of all POAAs is mapped in the NSW Oyster Industry Sustainable Aquaculture Strategy (OISAS). The water quality guidelines are also detailed in OISAS (page 23) which can be accessed at:

<http://www.dpi.nsw.gov.au/fisheries/aquaculture/publications/general/industry-strategy>.

### **3. Other comments**

Other specific comments including those relating to the consistency of the proposal with the Fisheries NSW *Policy and Guidelines for Fish Habitat Conservation and Management (2013)* include:

#### **3.1 Inadequate and compromised riparian foreshore buffer**

According to the EA and Appendices, the proposed development will retain and rehabilitate a 'vegetated foreshore buffer' 100 metres in width. This buffer includes an existing Crown Reserve of 30 metres in width. However, the EA proposes that the 100 metre wide foreshore buffer be developed as a 'foreshore park' and 'major recreation resource' to 'maximise the foreshore for leisure activities', create an 'active waterfront' and make 'all the foreshore land accessible to the public'. The western section of the foreshore is also proposed as a 'leisure hub' including 'commercial waterfront development'.

Fisheries NSW policy (*Policy and Guidelines for Fish Habitat Conservation and Management 2013*) requires riparian buffer zones to be established and maintained for developments in or adjacent to sensitive key fish habitat (including SEPP14 wetlands, coastal saltmarsh and

mangroves). The width of riparian buffer zones adjacent to highly sensitive key fish habitat (including SEPP 14 wetlands) should be a minimum of 100 metres measured from the highest astronomical tide level in tidal areas (generally 1.0m AHD) and should take into account predicted sea level rise (*Policy and Guidelines 2013*, section 6.1.4.1, pp.55-56).

Fisheries NSW policy also requires that infrastructure (e.g. cycleways, pathways, grass verges) within the riparian buffer zone be avoided or minimised to maintain lateral connectivity between aquatic and riparian habitat (*Policy and Guidelines 2013*, section 6.1.4.1, pp.55-56).

Fisheries NSW considers the ecological integrity of the proposed foreshore buffer will be significantly compromised by the proposed inclusion of the following infrastructure and 'embellishments' within the 100 metre foreshore buffer adjacent to the development site:

- Cycle/walkway (3.75km long) incorporating elevated boardwalks
- 300 metre long riverbank promenade (in western section)
- BBQ shelters, benches, seating, tables, fitness equipment & childrens' play equipment
- Grass areas for 'leisure'
- Boat launching ramp, car and trailer parking, jetty and pontoon
- Waterfront cafes and potential other commercial waterfront development (in western section) and associated car parks
- Open grass 'view corridors'
- Stormwater treatment infrastructure, including bio-retention basins and swales, discharge outlet structures, extended artificial wetland
- Potential vegetation clearing for Bushfire Asset Protection Zones (APZ)

It is also unclear how the foreshore buffer reserve will be managed in future. The EA suggests that the proponent will manage the foreshore buffer reserve for three years however it is not stated if this period commences from the start of the subdivision or on completion of the last dwelling. There is also no indication of what happens after that and if the foreshore land will ultimately be transferred to Shoalhaven City Council to manage into the future.

### 3.2 Proposed harm to marine vegetation

The EA proposes creation of three open grass 'view corridors' or 'vistas' (between 50 and 400 metres in width) to create water views of the Crookhaven River that will involve the clearing of an estimated 2 hectares of riparian vegetation including mangroves. No offset compensation has been proposed in the EA for the loss of marine vegetation.

Fisheries NSW policy notes that it will generally not approve the removal or trimming of marine vegetation (e.g. mangroves) for aesthetic purposes (e.g. to create water views) for private developments (*Policy and Guidelines 2013*, section 3.2.3.2, pp.20-21). Fisheries NSW also applies a 'no net loss' habitat policy. For unavoidable impacts on key fish habitat an offset is required which includes habitat compensation on a minimum 2:1 basis (*Policy and Guidelines 2013*, section 3.3.3.2, pp.29-30).

### 3.3 Inadequate and inconsistent information on water quality management and monitoring

Page 79 of Appendix O suggests that all the APZs, stormwater treatment basins and swales are to be located outside the vegetation setback from the Crookhaven River. This is contradicted by the Sediment & Erosion Control Plan (Appendix P) which clearly shows sediment basins and earth diversion bunds within the foreshore buffer. The Sediment & Erosion Control Plan also shows the earth diversion bund crossing proposed streets and passing through housing allotments which underlines the fact that water quality treatments have not been properly designed.

The proposed water quality monitoring for the development (Appendix P (Section 5.2 p.23) is grossly deficient. No direct monitoring of stormwater discharging from site is proposed. The

proponent only proposes to continue Shoalhaven City Council's existing three monthly sampling in the Crookhaven River and reduce this to six monthly if no impacts are detected. It is also suggested that water quality monitoring continue for only one year after development but it is not stated if this refers to completion of the subdivision or completion of the last dwelling or some other time point. The proposed monitoring is poorly targeted and will not have sufficient power to be able to detect any water quality impacts.

Water quality monitoring must include monitoring of the water emanating from the site during rainfall events as this is the only accurate way of determining the effectiveness of water quality controls. There also needs to be pre-commencement monitoring of water quality at the site and use of reference control sites.

#### **4. Recommendation**

Fisheries is not prepared to recommend conditions of approval at this stage on the basis that the proposal requires substantial reconfiguration and amendment before the Concept Plan could be considered for approval.

Fisheries NSW recommends that both the foreshore and water quality management components of the proposed development at West Culburra be redesigned in consultation with Fisheries NSW and other relevant agencies.

**End Attachment A**

## **Attachment B**

### **West Culburra Mixed Use Concept Plan (MP 09\_0088) Response to exhibition of Environmental Assessment Comment by NSW Office of Water**

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#### **1. Foreshore Buffer Zone**

The concept plan proposes a 100 metre foreshore buffer in order to protect riparian values on the subject site which is sufficient to meet NSW Office of Water (NOW) management objectives. However, NOW shares the concerns raised by Fisheries NSW in relation to encroachments and multiple uses within the buffer zone.

The proposed buffer will be compromised by a range of ancillary uses including clearing of vegetation beyond the shoreline to create water vistas and some asset protection zones, earthen swales and bio-retention ponds for water quality treatment, in addition to more passive uses such as a pedestrian/bike path and picnic tables.

NOW has no direct objection to the provision of formalised access for low impact, passive recreational uses in appropriate locations within the foreshore buffer area. Where possible such activities should utilise existing access points and disturbed areas. NOW however shares the concerns of Fisheries NSW in respect to the buffer zone being used generally for the broader purposes indicated in the EA. Most particularly, NOW considers that clearing riparian foreshore areas to establish water vistas is inappropriate.

Water quality control structures for example will require permanent access and ongoing maintenance which will continue to compromise the riparian values and intent of the foreshore buffer zone into the future. Such activities should be located outside of the buffer with the exception of providing stabilised flow paths where necessary, for treated discharge to be safely conveyed through the buffer zone and into the Crookhaven estuary.

NOW supports Fisheries NSW advice that the foreshore buffer zone should be redesigned so as to exclude physical structures such as water quality ponds; excluding wholesale clearing for water vistas and bushfire protection etc from within the designated buffer.

#### **2. Crookhaven River foreshore development**

NOW concurs with Fisheries NSW concerns in regard to the expectations created by the proposed foreshore development on the Crookhaven River foreshore. In addition to the fact that the waterway fronting the site is shallow and tidal, creating the expectation for substantial boating activities may lead to future requests for dredging to create a more functional water depth.

Such requests would be particularly undesirable in the Crookhaven estuary, given the presence of acid sulfate soils and the potential to impact on the natural values of the estuary, water quality, and the oyster industry among other things.

Reconsideration of the type and extent of foreshore development at Cactus Point is recommended.

**End Attachment B**